

AMENDMENTS TO THE CLAIMS

Cancel claims 1-5, and add new claims 6-13 as follows:

1-5. (Canceled).

6. (New) A method for transposition by a transposer, wherein a first signal of which at least one frequency band is discarded, is either expanded in time by duplicating segments of the first signal and down-sampling, or is compressed in time by discarding segments of the first signal and up-sampling, comprising the following steps:

performing a transient detection on a portion of the first signal, the portion including an input segment;

determining a codebook based on which a signal segment of the first signal is used when duplicating or discarding parts of the first signal to obtain an output segment, depending on an outcome of the step of performing a transient detection;

wherein the step of determining includes the following steps:

when a transient in a current portion of the input signal is not detected or a transient detected in an earlier portion of the input signal is not yet processed, determining the codebook such that an end of the codebook is (with respect to time) to the left of a current input segment of the first signal;

when a transient in a portion of the input signal is detected and when the detected transient in the input signal is already processed,

determining the codebook such that the codebook (with respect to time) extends to the right of a current input segment of the first signal so that a search for a synchronization point in the determined codebook prior to the transient is not allowed;

searching for a synchronization point in a codebook as determined in the step of determining by correlating a comparison segment of a previous output segment with the codebook as determined in the step of determining; and

generating a current output segment by using samples from the codebook for the current input segment starting from the synchronization point obtained in the step of searching, wherein a transposition factor is determined by a length of the current input segment and a length of the current output segment.

7. (New) A method according to claim 6, in which several transposers are interconnected in order to share synchronization point information.

8. (New) A method according to claim 7, in which the transposers are connected to a suitable filter bank, and signals fed into each of the several transposers are filtered as to obtain an arbitrary spectral envelope of a new signal being the sum of the signals being fed into the transposers.

9. (New) A method according to claim 6, in which the codebook is determined such that an end of the codebook coincides with a start of the current input segment, when a transient in a current portion of the input signal is not detected or a transient detected in an earlier portion of the input signal is not yet processed.

10. (New) A method according to claim 6, in which the codebook is determined such that an end of the codebook coincides with an end of the current input segment and a start of the codebook coincides with a start of the previous input segment, when a transient in a portion of the input signal is detected and when the detected transient in the input signal is already processed.

11. (New) A method according to claim 6, in which a length of the portion of the input signal used for transient detection is equal to a length of the output segment.

12. (New) A method according to claim 6, in which the step of searching is performed such that a synchronization point found in a preceding search is used in a current search.

13. (New) An apparatus for transposition, wherein a first signal of which at least one frequency band is discarded, is either expanded in time by duplicating segments of the first signal and down-sampling, or is compressed in time by discarding segments of the first signal and up-sampling, comprising:

a transient detector for performing a transient detection on a portion of the first signal, the portion including an input segment;

a processor for determining a codebook based on which a signal segment of the first signal is used when duplicating or discarding parts of the first signal to obtain an output segment, depending on an outcome of the step of performing a transient detection;

wherein the processor is operative to perform the following steps:

when a transient in a current portion of the input signal is not detected or a transient detected in an earlier portion of the input signal is not yet processed, determining the codebook such that an end of the codebook is (with respect to time) to the left of a current input segment of the first signal;

when a transient in a portion of the input signal is detected and when the detected transient in the input signal is already processed, determining the codebook such that the codebook (with respect to time) extends to the right of a current input segment of the first signal so that a search for a synchronization point in the determined codebook prior to the transient is not allowed;

a searcher for searching a synchronization point in a codebook as determined in the step of determining by correlating a comparison segment of a previous output segment with the codebook as determined in the step of determining; and

a generator for generating a current output segment by using samples from the codebook for the current input segment starting from the synchronization point obtained in the step of searching, wherein a transposition factor is determined by a length of the current input segment and a length of the current output segment.